

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (Previously Presented) A thermosensitive flow rate detecting device comprising:
 - a heat generating resistor, provided in fluid to be measured, for generating heat by electric power consumed in accordance with a flow rate of the fluid to be measured;
 - a first temperature detecting resistor, provided in the fluid to be measured and positioned at a location that is substantially not in fluid communication with the heat generating resistor, for detecting a temperature of the fluid to be measured, wherein the fluid temperature changes in accordance with the flow rate;
 - a second temperature detecting resistor, provided in fluid communication with the heat generating resistor, for detecting the temperature of said heat generating resistor, and
 - a bridge circuit having said first temperature detecting resistor and said second temperature detecting resistor electrically connected together therein, the bridge circuit being adapted to control a heating current of said heat generating resistor to maintain a constant temperature difference between said first temperature detecting resistor and said second temperature detecting resistor, wherein the flow rate within the fluid to be measured is detected by using the heating current, and
 - wherein said bridge circuit receives a voltage that is proportional to the heating current of said heat generating resistor.

2. (Previously Presented) A thermosensitive flow rate detecting circuit, comprising:

- a first temperature detecting resistor;
- a second temperature detecting resistor;
- a heat generating resistor that is provided in fluid communication with the second temperature detecting resistor;
- a bridge circuit having said first temperature detecting resistor and said second temperature detecting resistor electrically connected together therein; and
- a differential amplifier connected directly to the bridge circuit, the differential amplifier being adapted to divide a voltage across the heat generating resistor and output the divided voltage to the bridge circuit, wherein the second temperature detecting resistor is maintained at a constant temperature that is higher than a temperature of the first temperature detecting resistor and the heat generating resistor is maintained at substantially a same temperature as the second temperature detecting resistor.

3. (Currently Amended) ~~The~~ A thermosensitive flow rate detecting circuit ~~according to claim 2, further~~ comprising:

- a first temperature detecting resistor;
- a second temperature detecting resistor;
- a heat generating resistor that is provided in fluid communication with the second temperature detecting resistor;

a bridge circuit having said first temperature detecting resistor and said second temperature detecting resistor electrically connected together therein;

a differential amplifier connected directly to the bridge circuit, the differential amplifier being adapted to divide a voltage across the heat generating resistor and output the divided voltage to the bridge circuit, wherein the second temperature detecting resistor is maintained at a constant temperature that is higher than a temperature of the first temperature detecting resistor and the heat generating resistor is maintained at substantially a same temperature as the second temperature detecting resistor;

a first ~~partial~~ resistor having a first end connected to an input terminal of the differential amplifier and a second end connected to a first end of the heat generating resistor; and

a second ~~partial~~ resistor having a first end connected to the input terminal of the differential amplifier and a second end connected to a second end of the heat generating resistor.

4. (Currently Amended) ~~The~~ A thermosensitive flow rate detecting circuit ~~according to claim 2, further~~ comprising:

a first temperature detecting resistor;

a second temperature detecting resistor;

a heat generating resistor that is provided in fluid communication with the second temperature detecting resistor;

a bridge circuit having said first temperature detecting resistor and said second temperature detecting resistor electrically connected together therein;

a differential amplifier connected directly to the bridge circuit, the differential amplifier being adapted to divide a voltage across the heat generating resistor and output the divided voltage to the bridge circuit, wherein the second temperature detecting resistor is maintained at a constant temperature that is higher than a temperature of the first temperature detecting resistor and the heat generating resistor is maintained at substantially a same temperature as the second temperature detecting resistor;

a first ~~partial~~ resistor having a first end connected to an input terminal of the differential amplifier and a second end connected to a first end of the heat generating resistor; and

a second ~~partial~~ resistor having a first end connected to the input terminal of the differential amplifier and a second end connected to ground potential.